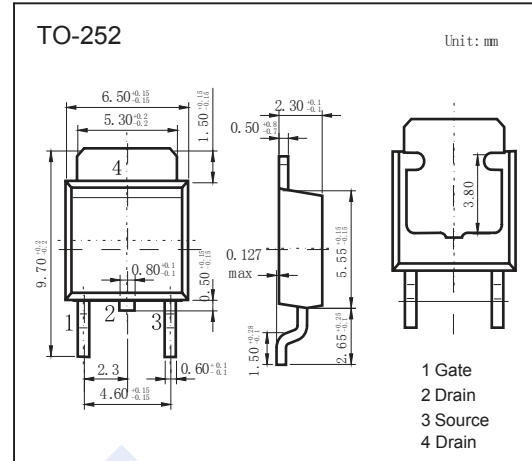
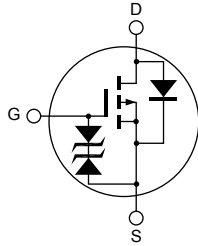


## P-Channel MOSFET

### 2SJ506S

#### Features

- $V_{DS} (V) = -30V$
- $I_D = -10 A$
- $R_{DS(ON)} < 85m\Omega$  ( $V_{GS} = -10V$ )
- $R_{DS(ON)} < 180\Omega$  ( $V_{GS} = -4V$ )



#### Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	-30	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	
Continuous Drain Current	$I_D$	-10	A
Pulsed Drain Current (Note.1)	$I_{DM}$	-40	
Body to Drain Diode Reverse Drain Current	$I_{DR}$	-10	
Power Dissipation	$P_D$	20	W
Junction Temperature	$T_J$	150	$^\circ C$
Junction Storage Temperature Range	$T_{stg}$	-55 to 150	

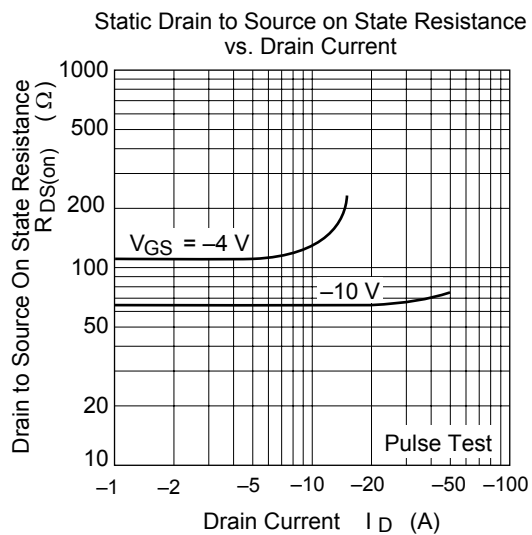
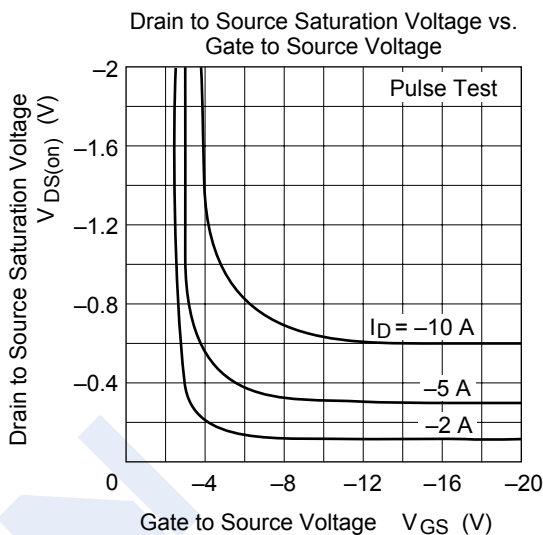
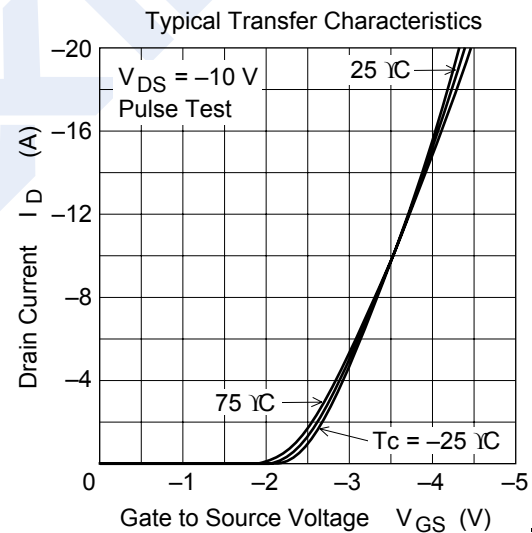
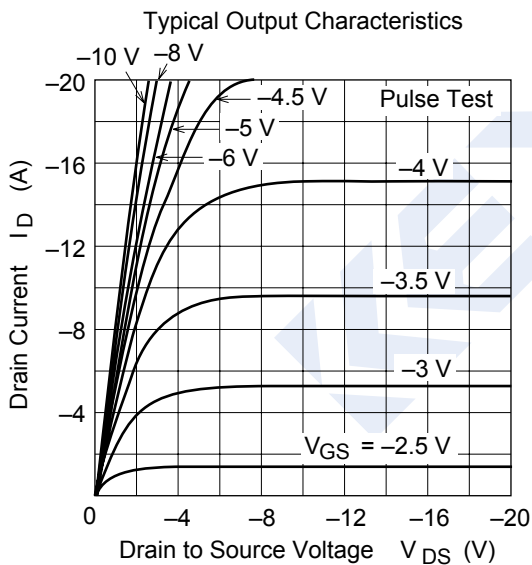
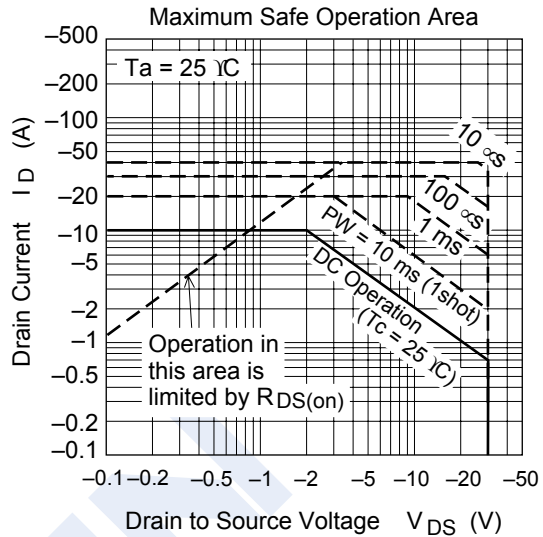
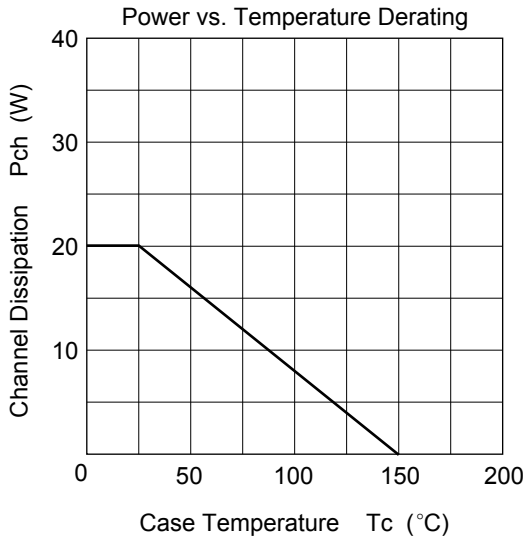
Note.1:  $PW \leq 10 \mu s$ , duty cycle  $\leq 1\%$

#### Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{DSS}$	$I_D = -10mA, V_{GS} = 0V$	-30			V
Gate-Source Breakdown Voltage	$V_{GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0V$	$\pm 20$			
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = -30V, V_{GS} = 0V$			-10	$\mu A$
Gate-Body leakage current	$I_{GSS}$	$V_{DS} = 0V, V_{GS} = \pm 16V$			$\pm 10$	$\mu A$
Gate to Source Cutoff Voltage	$V_{GS(off)}$	$V_{GS} = -10V, I_D = -1mA$	-1		-2	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS} = -10V, I_D = -5A$			85	m $\Omega$
		$V_{GS} = -4V, I_D = -5A$			180	
Forward Transconductance	$g_{FS}$	$V_{DS} = -10V, I_D = -5A$	10	16		S
Input Capacitance	$C_{iss}$	$V_{GS} = 0V, V_{DS} = -10V, f = 1MHz$		660		pF
Output Capacitance	$C_{oss}$			440		
Reverse Transfer Capacitance	$C_{rss}$			140		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS} = -10V, I_D = -5A, R_L = 2\Omega$		12		ns
Turn-On Rise Time	$t_r$			65		
Turn-Off DelayTime	$t_{d(off)}$			85		
Turn-Off Fall Time	$t_f$			65		
Body Diode Reverse Recovery Time	$t_{rr}$	$I_F = -10A, di/dt = 50A/\mu s, V_{GS} = 0$		65		
Diode Forward Voltage	$V_{SD}$	$I_S = -10A, V_{GS} = 0V$		-1.05		V

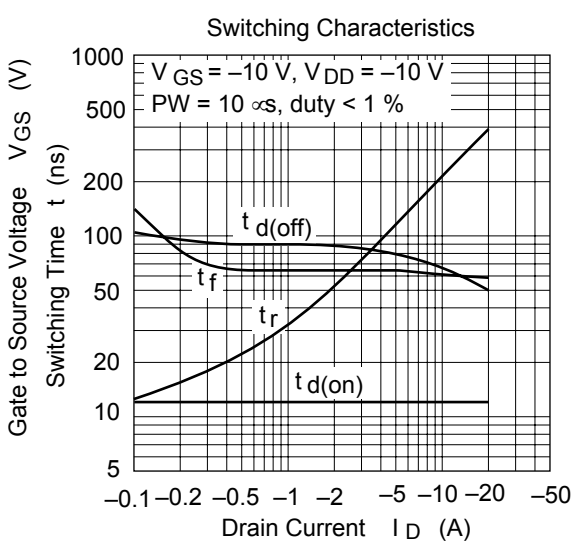
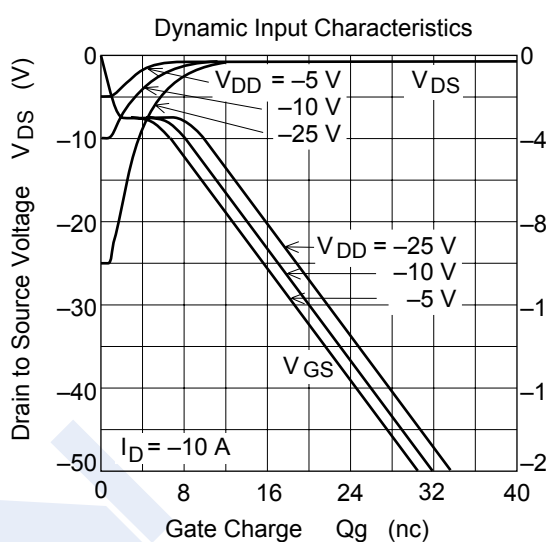
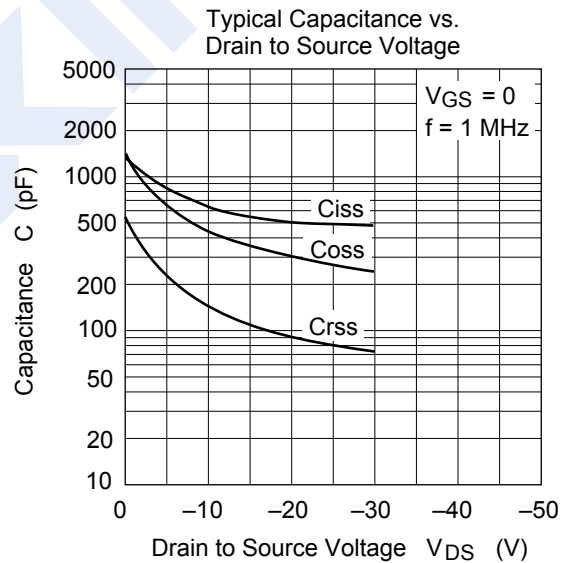
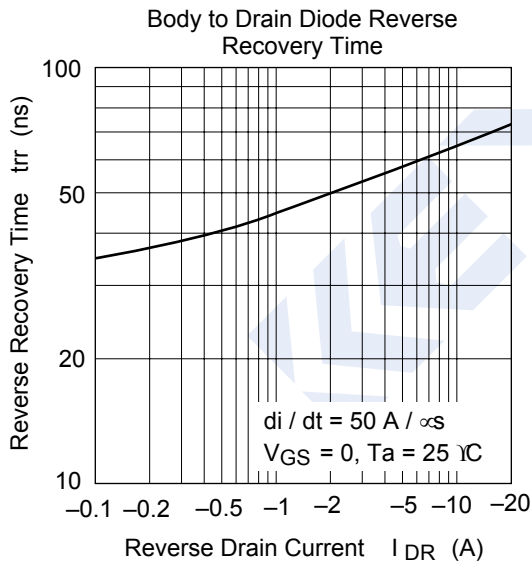
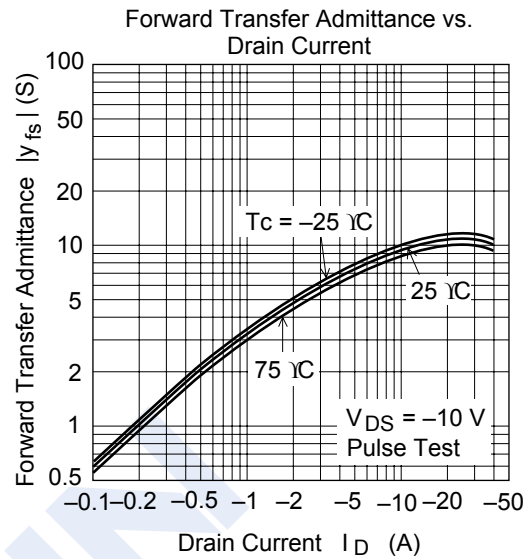
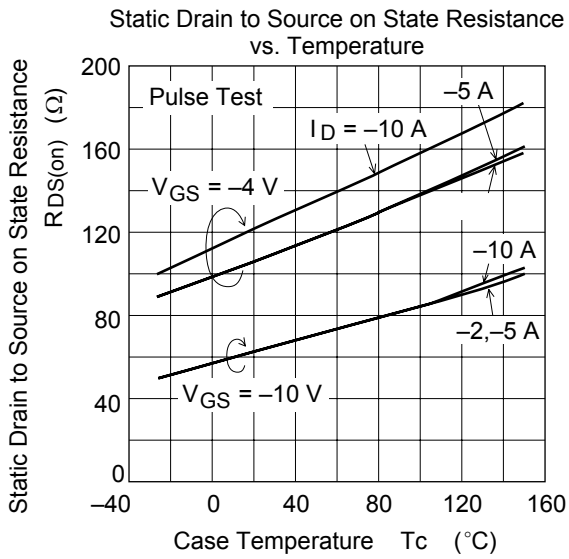
## P-Channel MOSFET 2SJ506S

■ Typical Characteristics



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■ Typical Characteristics



## P-Channel MOSFET 2SJ506S

■ Typical Characteristics

